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## denumerable

denumerable (di nü'mər ə bəl), *adj. Mathematics.* that can be put into one-to-one correspondence with the positive integers: *a denumerable set.* Also called countable.

—denumerability, *n.* denumerable quality or condition.

—denumerably, *adv.* by or with denumerable elements.

deoxidant, *n. Chemistry.* a deoxidizing agent.

deoxidation, *n. Chemistry.* the act or process of deoxidizing.

deoxidize (dē ok'sə diz), *v. Chemistry.* to remove oxygen from (a compound); reduce. —deoxidizer, *n.*

deoxy-, *combining form. Chemistry.* containing fewer atoms of oxygen in the molecule than (the specified compound), as in *deoxycholic (acid).*

deoxycholic acid (dē ok'sə kō'lik), *Chemistry.* a crystalline acid occurring in the bile of certain mammals including man and containing one less hydroxyl group than cholic acid. *Formula:*  $C_{24}H_{40}O_4$

deoxycorticosterone (dē ok'sə kōr'tə kō's'tə rōn), *n. Biochemistry.* a steroid hormone secreted by the cortex of the adrenal gland or produced synthetically, used especially in its acetate form in the treatment of adrenal deficiency, epilepsy, and certain conditions of hypotension: *Deoxycorticosterone and the other natural adrenal hormones control electrolyte and water balance* (New Scientist). *Formula:*  $C_{21}H_{30}O_3$

deoxygenate (dē ok'sə jə nāt), *v. Chemistry.* to remove free oxygen from (water, etc.).

—deoxygenation, *n.* the act or process of deoxygenating: *Extirpation of fish through deoxygenation of water takes place sometimes ... when fish that have been landlocked in a pond or lagoon find the water getting too warm* (Science News Letter).

deoxyribonuclease (dē ok'sə rī'bō nü'klē ās), *n. Biochemistry.* an enzyme that promotes the hydrolysis of deoxyribonucleic acid. Usually called DNAase or DNase.

deoxyribonucleic acid (dē ok'sə rī'bō nü'klē'ik), *Biochemistry.* a substance in all living cells, that is the genetic material passed from generation to generation. It is usually abbreviated DNA. DNA is a nucleic acid in the chromatin of all animals and plants and is also found in many viruses. It replicates and controls through messenger RNA (ribonucleic acid) the inheritable characteristics of all organisms.

A molecule of DNA consists of two parallel twisted chains of alternating units of phosphoric acid and deoxyribose, linked by crosspieces of the purine bases, adenine and guanine, and the pyrimidine bases, cytosine and thymine. See the picture at DNA.

► See the note under ribonucleic acid.

deoxyribonucleoprotein (dē ok'sə rī'bō nü'klē ō prō'tēn), *n. Biochemistry.* a nucleoprotein that contains DNA.

deoxyribose (dē ok'sə rī'bōs), *n. Biochemistry.* the sugar constituent of deoxyribonucleic acid: *All DNA nucleotides contain three units: phosphoric acid, a five-carbon sugar called deoxyribose, and a base, in this case a ring structure that can take up hydrogen ions* (McElroy, *Biology and Man*). *Formula:*  $C_5H_{10}O_4$ . See the picture at DNA.

dependent, *adj. Mathematics.* 1 (of a variable) determined by the values of one or more independent variables. 2 (of an equation) that can be derived from another equation.  $x + y = 3$  and  $2x + 2y = 6$  are dependent equations; any pair of values of  $x$  and  $y$  that satisfies one will satisfy the other.

depolarize *v. Physics.* to eliminate magnetic or other polarization.

—depolarization *n.* elimination of polarization, as in an electric cell. —depolarizer, *n.*

depolymerize (dē pol'ē mə riz'), *v. Chemistry.* (of a polymeric molecule) to break down into smaller units:

—depolymerization, *n.*: *Glucose is a sugar that nearly all living organisms can use. The problem, then, is to convert cellulose into glucose by depolymerization* (Elwyn T. Reese).

deposit, *n. Geology.* 1 a concentrated aggregate of one or more minerals, especially one of potential economic value: *A large proportion of the deep sea deposits is organic in origin, consisting of the shells of planktonic animals.* (Science News). 2 a mass of some mineral in rock or in the ground.

deposition, *n. Geology.* 1 the laying down of sediments by floodplains, glaciers, alluvial fans, etc.: *continental and marine deposition.* SYN: sedimentation. 2 = deposit.

—depositional, *adj.* of or having to do with a deposition: ... *depositional areas such as flood plains, old sea floor, or lake beds* (White and Renner, *Human Geography*).

ASSOCIATED TERMS: see erosion.

depressed, *adj. Botany, Zoology.* flattened down; broader than high.

depression, *n. 1 Geology.* a low place or hollow on a plain surface.

2 *Astronomy.* the angular distance of a heavenly body below the horizon.

3 *Meteorology.* an area of low atmospheric pressure: *Cyclones are low-pressure storms and commonly go by the name of lows, or depressions* (Finch and Trewartha, *Elements of Geography*).

depressor, *n. Anatomy.* a muscle that pulls down a part of the body. The mandibular depressor lowers the jaw to open the mouth. Contrasted with levator.

depressor nerve, *Physiology.* a nerve that acts to lower the blood pressure when stimulated.

deproteinize, *v. Chemistry.* to remove the protein from: *a deproteinized blood filtrate.*

depside (dep'sid), *n. Chemistry.* any of a group of esters formed from phenolic carboxylic acids. [from Greek *depsein* to tan, from *depsa* skin, hide]

derepress (dē'ri pres'), *v. Genetics.* to induce (a gene) to operate by disengaging the repressor: *The group ... now hopes to find out how genes are repressed and derepressed—turned off and on—so that genes can be made to operate when required* (Charles S. Marwick).

—derepressor, *n.* the mechanism that activates a gene by disengaging the repressing mechanism, or repressor.

derivation, *n. Mathematics.* the operation of deducing a function, quantity, etc., from another, especially the deducing of a differential coefficient.

**derivative**, *n.* 1 *Chemistry*. a substance obtained from another by modification or by partial substitution of components: *Acetic acid is a derivative of alcohol.* 2 *Mathematics*. a the instantaneous rate of change of a function with respect to its variable. b (in differential calculus) a function deduced from another function; a differential coefficient.

**derive**, *v.* 1 *Mathematics*. to deduce (a function, quantity, etc.) from another or others; define in terms of more fundamental elements. 2 *Chemistry*. to obtain (a substance) from another.

**derived unit**, *Physics*. any unit that is derived from, or defined in terms of, one or more fundamental units. The newton is a derived unit defined in terms of the kilogram, the meter, and the second.

**derma** (dér'mā), *n.* = dermis. [from Greek *derma* skin]

**dermal**, *adj.* *Anatomy*. 1 of or having to do with the dermis: *the dermal epithelium.* 2 of or having to do with the skin; cutaneous: *a dermal reflex, dermal necrosis.*

**dermatogen** (dər mat'ə jən), *n.* *Botany*. a thin layer of growing tissue from which the epidermis is developed. Also called protoderm.

**dermatome** (dér'mā tōm), *n.* *Embryology*. the part of the mesoderm from which the dermis develops. [from Greek *derma* skin + *-tōmia* a cutting]

**dermatophyte** (dér'mā tə fit or dər mat'ə fit), *n.* *Biology*. any fungus that is parasitic on the skin, hair, or nails.

**dermatosome** (dər mat'ə sōm), *n.* *Botany*. one of the granular bodies which are thought to form the cell wall of a plant. Dermalosomes occur in rows and are united and surrounded by protoplasm.

**dermis** (dér'mis), *n.* *Anatomy*. the sensitive layer of skin beneath the epidermis: *The thin flexible skin over the entire [frog], as in all land vertebrates, ... comprises an outer stratified epidermis and a dermis beneath, both of several cell layers (Storer, General Zoology).* Also called corium, cutis. See the picture at skin.

**desalinate** (dē sal'ə nāt'), *v.* *Chemistry*. to remove the salt from or reduce the amount of salt in (sea water, etc.). —desalination, *n.*

**descending**, *adj.* 1 extending or directed downward: *The descending colon extends down toward the rectum. The moon's descending node is the point extending southward.* 2 *Botany*. = determinate. Contrasted with ascending.

**descriptive geometry**, 1 the branch of geometry that solves three-dimensional problems by making projections of figures on two planes that are perpendicular to each other. 2 geometry in which projections are used in solving problems.

**desegmentation**, *n.* *Zoology*. the reduction of the number of segments by the coalescence of two or more, as in the carapace of a lobster.

**desert** (dez'ərt), *n.* *Ecology, Geography*. a dry, barren region that is usually sandy or rocky and without trees: *Most of the world's deserts are located about 30° north and south of the equator, in the so-called Horse Latitudes, [which] are continually parched by warm, dry winds that suck up any moisture (Birkeland and Larson, Putnam's Geology).* ► See the note under biome. —desertic (di zér'tik), *adj.* of or having to do with a desert or deserts. —desertification, *n.* the process of turning into arid land or desert: *Generally thought of as the degradation of lands by natural and human means, desertification*

*results in the diminution or destruction of the land's biological productivity (Science News).*

**desiccant** (des'ə kənt), *n., adj.* *Chemistry*. (an agent or substance) that removes moisture: *Two of the most popular desiccants are phosphorus pentoxide and magnesium perchlorate (New Scientist).*

**desmid** (des'mid), *n.* *Biology*. any of a large family (Desmidiaceae) of single-celled green algae that live in fresh water and are typically drawn together in the middle: *Among the algae, the diatoms, desmids, and dinoflagellates, with their unusual contours and outer skeletons, take on a bizarre appearance (McElroy, Biology and Man).* [from Greek *desmos* chain, band]

**desmosome** (des'mə sōm), *n.* *Biology*. an adhesive part of an epithelial cell by which it adheres to adjoining cells.

**desorb** (dē sōrb' or dē zōrb'), *v.* *Chemistry*. to release or be released from an absorbed or adsorbed condition. —desorption (dē sōrp'shən or dē zōrp'shən), *n.* the process of desorbing: *Desorption from the walls of the system constitutes a major source of the residual gas that keeps dribbling into an ultra-high-vacuum system (Scientific American).*

**destructive distillation**, *Chemistry*. the decomposition of a complex substance, such as crude oil, coal, or wood, by subjecting it to high temperature in the absence of air or oxygen.

**destructive metabolism**, *Biology*. the breaking down of organic tissue into simpler substances or waste substances. Also called catabolism.

**determinant** (di tēr'mə nənt), *n.* 1 *Mathematics*. a a certain number of quantities arranged in a square block whose value is the sum of all the products that can be formed from them according to certain rules. b the square block itself.

2 *Biology*. a a gene: *The two types may be distinguished by a sex determinant which is possessed by the male and is lacking in the female (E.L. Wollman and F. Jacob).* b a hereditary factor corresponding to the function of a gene. Also called determiner.

—determinantal, *adj.* having to do with or expressed in determinants.

**determinate** (di tēr'mə nit), *adj.* *Botany*. having flowers which arise from terminal buds and thus terminate a stem or branch. The forget-me-not has determinate inflorescence. SYN: cymose. Compare indeterminate. See the picture at inflorescence.

**determination**, *n.* *Embryology*. the changes within embryonic cells which fix their future course of development.

**determine**, *v.* *Geometry*. to fix or define the position of: *Three points determine a plane.*

**determiner**, *n.* = determinant (def. 2).

cap, fāce, fāther; best, bē, tērm; pin, five;  
rock, gō, ōrder; oil, out; cup, pūt, rüle,  
yū in use, yū in uric;  
ng in bring; sh in rush; th in thin, TH in then;  
zh in seizure.  
ə = a in about, e in taken, i in pencil, o in  
lemon, u in circus